Project Title: Develop Pheromone/Bioacoustic Attractants to Control Ruffe

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Name of Organization: U.S. Fish and Wildlife Service

Type of Organization: Federal Agency

Contact Information: Mr. Gary Czypinski

2800 Lakeshore Dr. E., Suite B

Ashland WI 54806

Phone: (715) 682 - 6185 **Extension:** 211

Fax: (715) 682 - 8899

E-Mail: gary_czypinski@fws.gov

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Project Category: Exotic Species

Rank by Organization (if applicable): 2

Total Funding Requested (\$): 275,720 **Project Duration:** 2 Years

Abstract:

The Service will conduct field tests to develop a pheromone attractant and determine the feasibility of an acoustic lure to enhance ruffe trapping efficiency. This information will support the development of safe selective tools for preventing or delaying the expansion of a nuisance fish in the Great Lakes and inland waters. University of Minnesota researchers have identified pheromones that serve as attractants and repellents for ruffe. There is widespread literature that fish use sound for the purposes of communicating and attracting each other.

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Geographic Areas Affected by the Project States: Illinois New York Indiana Pennsylvania Michigan Wisconsin Minnesota Ohio	Erie Ontario All Lakes			
Geographic Initiatives: Greater Chicago NE Ohio NW Indiana SE Michigan Drimany Affacted Area of Concerns All ACCo	n Lake St. Clair			
Primary Affected Area of Concern: All AOCs Other Affected Areas of Concern:				
For Habitat Projects Only: Primary Affected Biodiversity Investment Area: Not Applicable Other Affected Biodiversity Investment Areas:				

Problem Statement:

The Ruffe Control Program states that "fishery agencies should pursue research projects to develop and test physical and chemical methods of efficiently and selectively removing ruffe". As with many aquatic nuisance species control programs, there is a lack of safe, selective, and effective techniques to control the Eurasian ruffe. Successful control of the ruffe will result in a number of benefits to recreational fishers and other resource users.

Proposed Work Outcome:

Under field conditions, test a synthesized pheromone, identified by previous research conducted by the University of Minnesota-St. Paul, which stimulated activity by spawning ruffe and determine the feasibility of using this pheromone as an attractant. Under laboratory conditions, test a spectrum of low frequency sounds to identify those frequencies (if any) that simulate ruffe communication, and therefore could possibly be used as an attractant.

The outcome would be to increase technology available to control ruffe by developing attractants to enhance trapping efficiency for reduction of ruffe populations.

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Project Milestones: Project Start	Dates: 01/2001	
Froject Start	/	
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Project End	12/2002	
Project Addresses Environmental Justice		

If So, Description of How:

Project Addresses Education/Outreach

If So, Description of How:

Area fish managers could have additional tools to contol an invasive, nuisance, fish.

Project Budget:

	Federal Share Requested (\$)	Applicant's Share (\$)
Personnel:	196,000	0
Fringe:	0	0
Travel:	9,000	0
Equipment:	11,000	0
Supplies:	10,000	0
Contracts:	0	0
Construction:	0	0
Other:	0	0
Total Direct Costs:	226,000	0
Indirect Costs:	49,720	0
Total:	275,720	0
Projected Income:	0	0

Funding by Other Organizations (Names, Amounts, Description of Commitments):

Description of Collaboration/Community Based Support: